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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/775,213 | 02/11/2004 | Tetsuhiro Ishikawa | 248774US2 | 9974 |
| 22850 | 7590 | 08/09/2005 | EXAMINER | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | FISCHMANN, BRYAN R | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3618 | |

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/775,213

Applicant(s)

ISHIKAWA ET AL.

Examiner

Bryan Fischmann

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 8-16 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>02-11-04</u> . | 6) <input type="checkbox"/> Other: _____ |

Specification

1. The abstract of the disclosure is objected to because of the following:

A) To be clear to the reader, it is believed that the recitation of "a solid line 'A'" in line 2 should instead read "a solid line 'A' in Figure 2".

See also a similar objection in line 3.

2. The specification is objected to because of the following:

A) The following recited phrases are unclear, awkwardly worded, and/or grammatically incorrect:

1) The penultimate line of paragraph 0010 recites "required for vehicle 1".

It is considered unclear what is being referred to by the number "1" in this recitation. Note that no reference number could be located on the drawing figures corresponding to the number "1".

2) Paragraph 0011 recites "the vehicle weight is approximately 2t".

It is considered unclear what is being referred to by the letter "t" in the above recitation. Note that defining this letter in an amendment, such as t=1 ton would likely constitute new matter, unless Applicant can cite support for this in the original disclosure, or cite examples in the prior art such that the letter t is defined by the word "ton", or other definition.

Note also that since this Application claims foreign priority to two Japanese documents, it is also quite possible that the letter "t" is associated with some unknown metric unit.

See also paragraphs 0020, 0021 and 0030

3) The last two lines of paragraph 0020 recites "and a cost in the electric vehicle".

The meaning of this recited phrase is considered unclear.

It is believed that the line being referred to on Figure 2 in the above recitation is associated with a minimum cost of a fuel cell and capacitor, namely line "C" on Figure 2.

See also the recitation of "equal cost line" in paragraph 0030, which is also considered unclear for similar reasons.

4) The recitation of "... Chain line 'C', is the range near the minimum cost, among the condition satisfaction range" in paragraph 0031 is considered unclear.

5) The middle portion of paragraph 0035 recites "shot time". It is believed that it was the intent of Applicant that the above recitation instead read "short time".

B) The following inconsistencies in nomenclature were noted:

1) Paragraph 0027 recites both "drive motor 36" and "drive motor 86". Paragraph 0028 recites "brake pedal position sensor 86".

To avoid confusion to the reader, and to facilitate identifying components by nomenclature in the claims, it is requested Applicant use consistent nomenclature for the same reference number throughout the specification.

Drawings

3. In Figure 2, it is considered unclear how line "C", defined by the specification as "equal cost line", can be represented as a parameter in a graph where the abscissa is fuel cell output power and the ordinate is the capacitance of a capacitor.

Claim Objections

4. Claim 6 is objected to because of the following:

A) The recitation of the value "2t" in line 2 of claim 6 is objected to for reasons set forth in the "Specification" portion of this Office Action.

Allowable Subject Matter

5. Claims 1-5 and 8-16 are allowed.

6. Claims 6 and 7 would be allowable if rewritten to overcome the claim objection to claim 6 set forth in this Office Action and to include all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

7. The following is an Examiner's statement of reasons for allowance of independent claims 1 and 12:

Claim 1 recites the limitation of a an electric vehicle, comprising; an electric motor, a drive circuit of the electric motor, a fuel cell which is electrically connected to the electric motor, and a capacitor which is connected in parallel to the fuel cell, wherein a maximum output of the fuel cell and a capacitance of the capacitor are set such that

a first running condition for obtaining a predetermined high vehicle speed by repeatedly starting the vehicle at maximum acceleration required of the vehicle and a second running condition for repeatedly changing a vehicle speed from a first medium vehicle speed to a second medium vehicle speed at the maximum acceleration required of the vehicle are satisfied. This limitation, in combination with the other limitations of claim 1, were not found in the prior art.

Note claim 12 contains a similar limitation in "method format".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. This application is in condition for allowance except for the following formal matters:

The abstract, specification, drawing and claim objections set forth in this Office Action.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


A) Rajashekara, Autenrieth, et al, Uenodai, et al, Enjoji, et al, Shimada, et al, Hasuka, et al, Okusawa, et al and Takase, et al – teach use of a capacitor in conjunction with a fuel cell

B) Ishikawa, et al – related application by Applicant

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bryan Fischmann whose telephone number is (571) 272-6694. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis, can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 8-5-5
BRYAN FISCHMANN
PRIMARY EXAMINER